



**Metro**

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**MAY 19, 2011**

**TO: BOARD OF DIRECTORS**

**THROUGH: ARTHUR T. LEAHY** *by [signature]*  
**CHIEF EXECUTIVE OFFICER**

**FROM: MARTHA WELBORNE, FAIA** *MW*  
**EXECUTIVE DIRECTOR, COUNTYWIDE PLANNING**

**SUBJECT: ANALYSIS OF FINANCIAL IMPACTS OF PROPOSED COST AND  
SCOPE CHANGES FOR CRENSHAW/LAX CORRIDOR PROJECT**

### **ISSUE**

This report responds to a request to analyze the funding impacts of two scenarios related to increasing the cost and recommended scope of the Crenshaw/LAX Corridor project, as follows:

- Scenario 1: An additional station at Vernon Avenue in Leimert Park; and
- Scenario 2: An additional station at Vernon Avenue and under-grounding through Park Mesa Heights (48<sup>th</sup> to 59<sup>th</sup> Streets).

### **ANALYSIS**

It is extremely important to note that we have undertaken our analysis before accounting for the possible decrease in available revenues. This possible decrease in available revenues may be due to the cancellation of the Spring 2011 State Proposition 1B bond sale (\$174 million), the possible cancellation of the Fall State bond sale (estimated at \$400 million), and the possible federal transportation funding cuts pending in Congress (14% to 30%, or \$1.0 billion to \$2.2 billion). If any or all of these revenues are actually lost, the results of our analysis will be far worse than what is explained herein and in the attached. Already we have already accounted for the sales tax forecast change made necessary by the 2009 worldwide economic recession.

In April 2011, the Board of Directors adopted priorities for the Los Angeles County Transportation Improvement Program (TIP) from fiscal year (FY) 2011 through FY 2019. Attachment A summarizes the adopted Los Angeles County TIP priority categories and Attachment B provides a detailed analysis of our current status in trying to fund the entire program. We developed the analysis displayed in Attachment B by incorporating prior Board actions and 2009 Long Range Transportation Plan (LRTP) assumptions that were updated to reflect the worldwide economic recession and recovery.

## **Analysis Assumptions**

This analysis includes prior Board actions and any staff recommendations that will be necessary to acquire, construct, and operate the South Western Light Rail Yard and the base Crenshaw/LAX project. Prior Board actions included in the analysis consist of the following uses of \$60.0 million in contingency funds once set aside in the LRTP but now no longer available:

- |   |                 |
|---|-----------------|
| • Metro Gold Line Eastside Quad Gates           | \$ 3.3 million  |
| • US 101 Freeway Ramp Realignment               | \$ 2.9 million  |
| • Expo Phase 1 Safety Enhancements              | \$ 36.6 million |
| • Expo Phase 1 Claims (part of \$28.5 m. total) | \$ 17.2 million |

Once the above LRTP contingency was exhausted, the following additional prior actions of the Board of Directors added \$131.5 million in unanticipated costs to the first decade of the LRTP. These added costs will force us to partially defer certain Metrolink and Red Line System Improvements into the next decade as discussed later in this report:

- |   |                 |
|---|-----------------|
| • Expo Phase 1 Claims (remainder of \$28.5 m. total)  | \$ 11.3 million |
| • Blue & Green Line Passenger Info. System            | \$ 6.0 million  |
| • Metro Express Lanes                                 | \$ 37.2 million |
| • Miscellaneous Projects (each less than \$1 million) | \$ 2.0 million  |
| • Union Station Purchase                              | \$ 75.0 million |

Recommendations to the Board of Directors that will soon be necessary to be able to acquire, construct, and operate the South Western Light Rail Yard and the base Crenshaw/LAX project are as follows and described in more detail below:

- |   |                 |
|---|-----------------|
| • Countywide Light Rail Yard Shortfall (preliminary est.) | \$154.0 million |
| • Base Crenshaw/LAX Cost Increase                         | \$ 48.8 million |

This analysis assumes that rail yard and maintenance facilities costs will be shared amongst the beneficiary projects and that the base cost of the Crenshaw/LAX project will be met. We have assumed for this analysis that the Crenshaw/LAX project cost estimate adequately addresses funding requirements for its share of these rail yards and maintenance facilities. However, implementing the Measure R rail program in its entirety countywide will require adequate capacity for all future rail extensions, even those not funded in the first decade of the LRTP. A first decade countywide light rail yard shortfall of at least \$154 million now exists because light rail yards for projects later in the LRTP are to be addressed now as part of the Southwestern and Eastern yards. As we approach second and third decade projects later in the LRTP, these accelerated expenditures may yield savings that could be used to restore funding for first decade projects to be deferred now in favor of meeting immediate needs for rail yards and facilities. This analysis reflects these rail needs and the needs for the Crenshaw/LAX base budget.

The base budget for the Crenshaw/LAX project is not yet constrained to its LRTP figure of \$1,715.0 million. At a minimum, it is believed that we will need an additional \$48.8 million to meet the base Crenshaw/LAX project cost. The \$48.8 million figure

assumes that certain value engineering assumptions, including abandonment of the Burlington Northern Santa Fe (BNSF) track, the modified LAX Trench segment, and other changes are achievable. Without achieving such assumptions, the cost difference may exceed \$100 million. This analysis assumes that the minimum cost increase must be met to implement the base cost of the Crenshaw/LAX project.

In summary, prior Board actions and any staff recommendations that will be necessary to acquire, construct, and operate the South Western Light Rail Yard and the base Crenshaw/LAX project are assumed in the base case for both scenarios of this analysis. In both scenarios, these base case assumptions reduce the amount of funding available for the Metrolink and Red Line System Improvements discussed below.

### **Scenario 1 (Attachments C and D):**

Implementing this scenario would require approximately \$131.0 million in additional funding not contemplated in the LRTP: \$131.0 million for the proposed additional station at Vernon on the Crenshaw/LAX Corridor project in Year-of-Expenditure (YOE) dollars.

As shown in Attachment D, there are no uncommitted funds available to support these cost increases. Before the possible state and federal revenue decreases discussed above, the added cost and scope of the Crenshaw/LAX project would require that we defer the majority of the improvements from amongst this list of Board-adopted priorities (all YOE dollars in millions):

Metrolink Rehab. (Cars, Tracks, Bridges, Signals)	\$ 62.6 M
Existing Rail System Improvements to Support Higher Ridership:	
Ventilation North Hollywood	\$160.0 M
Red Line Train Control	\$ 60.0 M
North Hollywood Terminal	\$ 94.2 M
Red Line traction power improvements	\$ 94.2 M
Red Line Upgrade Division 20	<u>\$113.6 M</u>
Total	\$584.6 M

Priorities were not set within this group of projects. The \$131.0 million needed for the Vernon Station would require that a subset of the total package be deferred.

### **Scenario 2 (Attachments E and F)**

Implementing this scenario would require up to \$400.0 million in additional funding not contemplated in the LRTP: \$400.0 million (YOE \$s) for the proposed additional station at Vernon Avenue and under-grounding through Park Mesa Heights on the Crenshaw/LAX Corridor project.

As shown in Attachment F, there are no uncommitted funds available to support these cost increases. The funding needs above would require that we defer all of the remaining Metrolink and Red Line System Improvements shown in Attachment F and described in Scenario 1 above. Also, an additional \$149 million in projects from the

next transit category in the list of Board-adopted priorities would have to be deferred or some other combination totaling \$400 million:

Metro Bus Acquisition (non-FAP) (47% of 1 <sup>st</sup> decade need)	\$580 M
Metro Rail Capital:	
Facilities Maintenance (50% of 1 <sup>st</sup> decade need)	\$ 50 M
Miscellaneous Projects (50% of 1 <sup>st</sup> decade need)	\$ 80 M
Miscellaneous Red, Blue, Green Impvm'ts (50% of 1 <sup>st</sup> dec. need)	\$ 40 M
Safety and Security Projects (50% of 1 <sup>st</sup> decade need)	\$ 35 M
Vehicle Maintenance (50% of 1 <sup>st</sup> decade need)	\$ 15 M
Wayside Systems (50% of 1 <sup>st</sup> decade need)	\$ 20 M
East San Fernando Valley North-South Rapidways	<u>\$123 M</u>
<b>TOTAL</b>	<b>\$943 M</b>

Again, priorities were not set within this group of projects. The projects above are generally selected annually, except for the East San Fernando Valley North-South Rapidways. These annually selected projects may typically be safety and security upgrades and projects that replace and often upgrade aging assets such as vehicle and wayside signaling and dispatching systems, air-conditioning, lighting, and elevators. We do not recommend deferring these maintenance expenses under any circumstances.

Finally, Scenario 2 could require a policy decision from the Board of Directors relating to the transit-versus-highway program: Should we defer additional highway projects instead? If the Board decided to do so, this list of projects could be impacted, subject to funding eligibility rules:

\$'s in Millions		
166	I-5 South(5): San Antonio, Imperial Hwy, and Orr and Day	167.7
167	I-5 South(6): Florence Avenue Interchange	153.3
168	I-605 Corridor "Hot Spot" Intchg Gateway Cities - 50%	57.5
169	SR-138 Widening - 106th St E. to 126th St E.; 77th to 89th	65.0
170	SR-138 Widening-.07 mi w of T-8-77th E; 89th E.-96th E.	65.0
	<b>TOTAL</b>	<b>\$ 508.5</b>

Attachment G shows the highway projects that would be put at risk, should we defer highway projects instead of the transit category assumed for this analysis.

## **NEXT STEPS**

The Board of Directors is expected to be certifying the final Environmental Impact Statement/Environmental Impact Report for the Crenshaw/LAX Base and considering programming dollars to the Light Rail Yard costs in the coming months. In addition, the Board is expected to consider a motion that would add up to \$400.0 million for the proposed additional station at Vernon and the under-grounding through Park Mesa

Heights on the Crenshaw/LAX Corridor project. We are prepared to address these considerations as the Board may instruct.

If the Board directs us to add the additional scope of work from Crenshaw/LAX Scenario 1 or Scenario 2, we would need to reprogram the entire \$17.7 billion Los Angeles County TIP through FY 2019 according to fund source eligibility rules. Attachment H shows an estimate of the funding types assumed to be available through FY 2019. Numerous other funding considerations would have to be analyzed, including, but not limited to, the following:

- Eligibility of project activities under funding programs;
- Potential risk of lapsed or rescinded project specific discretionary funds;
- Ability to demonstrate to the Federal Transit Administration that State-of-Good Repair needs can be met;
- Compliance with the federal Clean Air Act's enforceable Transportation Control Measure rules;
- Measure R Ordinance regulations and statutory laws; and
- Annual availability and cash flow demands.

#### **ATTACHMENT(S)**

- A. 2011 Los Angeles County TIP Priorities
- B. First Decade Priority Detail: Good Repair (171-176)
- C. Approved and Proposed Cost Increases: Scenario 1
- D. First Decade Priority Detail: Good Repair (171-176): Scenario 1
- E. Approved and Proposed Cost Increases: Scenario 2
- F. First Decade Priority Detail: Good Repair (171-176): Scenario 2
- G. First Decade Priority Detail: Highways (166-170) Alternate to Scenario 2
- H. First Decade Capital Project Funding Summary

# 2011 Transportation Improvement Prog.

Attachment A

## Priorities:

### FY 2011 to FY 2019

1.	Projects already under construction:	\$ 2.76 B
2.	Projects with bids advertised:	\$ 2.35 B
3.	Right-of-way activities/purchases:	\$ 0.35 B
4.	Begin or continue all 1 <sup>st</sup> decade project development phases:	\$ 1.97 B
5.	Projects seeking funds to begin or continue project development	\$10.65 B
6.	Other projects/not included above	\$ <u>2.03 B</u> Deferred
	Total	\$20.11 B

This analysis includes MTA project funding for projects over \$7 million in total cost.



# Attachment B

## 1st Decade Priority Detail: Good Repair (171-176)

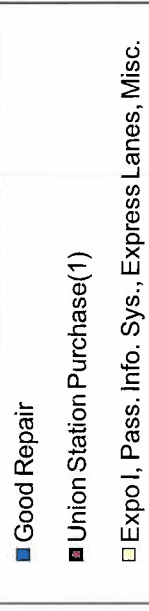
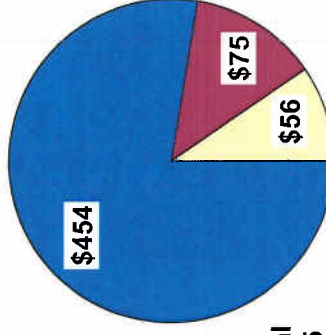
### 2011 Trans. Improvement Program Priorities Category 5 (\$ Millions)

Group of Projects	Att. A Line #'s	Amount
Safety/Disc. Grants	78-82	\$2,735
Readiness/Equity	83-92	\$575
Good Repair	93-99	\$704
Highway Mobility	100-104	\$194
Good Repair	105-107	\$69
Highway Mobility	108-115	\$515
Transit Mobility	116-125	\$1,807
Highway Mobility	126-134	\$410
Transit Mobility	135-136	\$230
Highway Mobility	137-156	\$958
Good Repair	157-165	\$943
Highway Mobility	166-170	\$509
Good Repair	171-176	\$585
Mobility Highway	177-185	\$423
Total 2011 TIP Cat. 5		\$10,650

Metrolink Rehabilitation	\$62.6
Rail System Improvements:	
Ventilation North Hollywood	\$160.0
Red Line Train Control	\$60.0
North Hollywood Terminal	\$94.2
Red Line traction power imp.	\$94.2
Red Line Upgrade Div. 20	\$113.6
Good Repair (171-176)	\$584.6

Total  
→ \$585

### Approved Cost Increases (\$ in YOE millions, Net of Contingency)



(1) Assumes anticipated revenues are not available for capital purposes.

← Previously Deferred



# Approved & Proposed Cost Increases

Scenario 1 - Add \$131 M for Vernon Station

(\$'s in Millions)

Project	Board Action Date and Report #	Amount
Metro Gold Line Eastside Quad Gates	May 2010, Report #29	\$ 3.30
US-101 Freeway Ramp Realignment	July 2010, Report #6	\$ 2.90
Expo Phase I	July 2010, Report #26	\$ 36.59
Expo Phase I (Partial)	Dec 2010, Report #6	\$ 17.21
<b>Subtotal Approved, Applied to Contingency</b>		<b>\$ 60.00</b>

Expo Phase I (Balance)	Dec 2010, Report #6	\$ 11.29
MBL/MGL Transit Passenger Info System	Sept 2010, Report #30	\$ 5.99
Metro Express Lanes	Dec 2010, Report #22	\$ 37.20
Miscellaneous Projects (less than \$1 million)	June 10, #28; July 10, #6 September 10, #3	\$ 2.00
Union Station Purchase	Closed Session	\$ 75.00
<b>Subtotal Approved, Applied by Deferring Projects</b>		<b>\$ 131.48</b>

Crenshaw/LAX Base Cost Increase	July 2011	\$ 48.80
Light Rail Vehicle Yards Shortfall	June 2011	\$ 154.00
Vernon Station (Leimert Park)	Board Motion May 2011	\$ 131.00
<b>Subtotal Proposed Programming</b>		<b>\$ 333.80</b>
<b>TOTAL</b>		<b>\$ 525.28</b>





# Attachment D

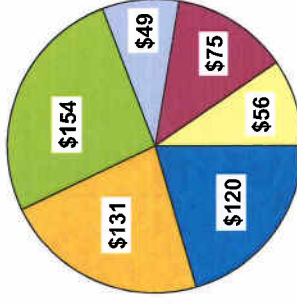
## 1st Decade Priority Detail: Good Repair (171-176)

### 2011 Trans. Improvement Program Priorities Category 5 (\$ Millions)

Group of Projects	Att. A Line #'s	Amount
Safety/Disc. Grants	78-82	\$2,735
Readiness/Equity	83-92	\$575
Good Repair	93-99	\$704
Highway Mobility	100-104	\$194
Good Repair	105-107	\$69
Highway Mobility	108-115	\$515
Transit Mobility	116-125	\$1,807
Highway Mobility	126-134	\$410
Transit Mobility	135-136	\$230
Highway Mobility	137-156	\$958
Good Repair	157-165	\$943
Highway Mobility	166-170	\$509
Good Repair	171-176	\$585
Mobility Highway	177-185	\$423
Total 2011 TIP Cat. 5		\$10,650

← Previously Deferred

### Approved and Proposed Cost Increases (\$ in YOE millions, Net of Contingency)



- Good Repair
  - Vernon Station (Leimert Park)
  - Light Rail Vehicle Yards
  - Crenshaw/LAX Base Cost Increase
  - Union Station Purchase(1)
  - Expo I, Pass. Info. Sys., Express Lanes, Misc.
- (1) Assumes anticipated revenues are not available for capital purposes.



# Approved & Proposed Cost Increases

## Scenario 2 – Add \$400 M for Vernon Station & Undergrounding

(\$'s in Millions)

Project	Board Action Date and Report #	Amount
Metro Gold Line Eastside Quad Gates	May 2010, Report #29	\$ 3.30
US-101 Freeway Ramp Realignment	July 2010, Report #6	\$ 2.90
Expo Phase I	July 2010, Report #26	\$ 36.59
Expo Phase I (Partial)	Dec 2010, Report #6	\$ 17.21
<b>Subtotal Approved, Applied to Contingency</b>		<b>\$ 60.00</b>

Expo Phase I (Balance)	Dec 2010, Report #6	\$ 11.29
MBL/MGL Transit Passenger Info System	Sept 2010, Report #30	\$ 5.99
Metro Express Lanes	Dec 2010, Report #22	\$ 37.20
Miscellaneous Projects (less than \$1 million)	June 10, #28; July 10, #6 September 10, #3	\$ 2.00
Union Station Purchase	Closed Session	\$ 75.00
<b>Subtotal Approved, Applied by Deferring Projects</b>		<b>\$ 131.48</b>

Crenshaw/LAX Base Cost Increase	July 2011	\$ 48.80
Light Rail Vehicle Yards Shortfall	June 2011	\$ 154.00
Vernon Station (Leimert Park) + Undergrounding	Board Motion May 2011	\$ 400.00
<b>Subtotal Proposed Programming</b>		<b>\$ 602.80</b>
<b>TOTAL</b>		<b>\$ 794.28</b>



# Attachment F

## 1st Decade Priority Detail: Good Repair (171-176)

### 2011 Trans. Improvement Program Priorities Category 5 (\$ Millions)

Group of Projects	Att. A Line #'s	Amount
Safety/Disc. Grants	78-82	\$2,735
Readiness/Equity	83-92	\$575
Good Repair	93-99	\$704
Highway Mobility	100-104	\$194
Good Repair	105-107	\$69
Highway Mobility	108-115	\$515
Transit Mobility	116-125	\$1,807
Highway Mobility	126-134	\$410
Transit Mobility	135-136	\$230
Highway Mobility	137-156	\$958
Good Repair	157-165	\$943
Highway Mobility	166-170	\$509
Good Repair	171-176	\$585
Mobility Highway	177-185	\$423
Total 2011 TIP Cat. 5		\$10,650



**Metro**

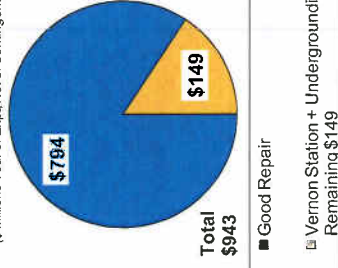
MTA Bus Acquisition (non-FAP) 47%	\$500
MTA Bus Acquisition (non-FAP) 47%	\$80
MTA Rail Capital:	
Facilities Maintenance 50%	\$50
Misc. Projects 50%	\$80
Misc. Red, Blue, Green Impvm'ts 50%	\$40
Safety and Security Projects 50%	\$35
Vehicle Maintenance 50%	\$15
Wayside Systems 50%	\$20
East San Fern. Val. North-South Rapid.	\$123
<b>TOTAL</b>	<b>\$943</b>

#### LRTP Policy Assumption:

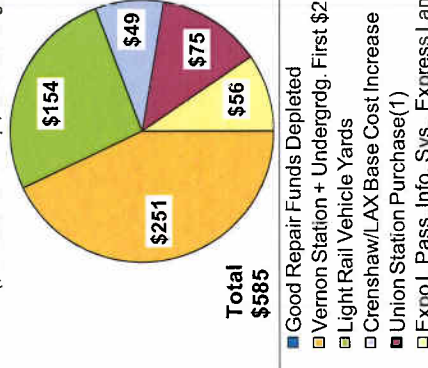
Pass over highway projects and  
defer transit category instead?  
(For detail, see Attachment G)

MetroLink Rehabilitation	\$62.6
Rail System Improvements:	
Ventilation North Hollywood	\$160.0
Red Line Train Control	\$60.0
North Hollywood Terminal	\$94.2
Red Line traction power imp.	\$94.2
Red Line Upgrade Div. 20	\$113.6
<b>Good Repair (171-176)</b>	<b>\$584.6</b>

### Approved and Proposed Cost Increases Priority Lines 157-165 (\$ Millions Year of Exp., Net of Contingency)



### Approved and Proposed Cost Increases Priority Lines 171-176 (\$ Millions Year of Exp., Net of Contingency)



# First Decade Priority Detail: Highways (166-170) (Highway Alternate to Scenario 2)

Attachment G

\$'s in Millions		
166	I-5 South(5): San Antonio, Imperial Hwy, and Orr and Day	167.7
167	I-5 South(6): Florence Avenue Interchange	153.3
168	I-605 Corridor "Hot Spot" Intchg Gateway Cities - 50%	57.5
169	SR-138 Widening - 106th St E. to 126th St E.; 77th to 89th	65.0
170	SR-138 Widening-.07 mi w of T-8-77th E; 89th E.-96th E.	65.0
	<b>TOTAL</b>	<b>\$ 508.5</b>



# First Decade Capital Project Funding Summary

## Attachment H

